2 May 1990

Not Responsive Due to Revised Scope

NUS Corporation
999 West Valley Road
Wayne, PA 19087

Subject: Site assessment - Valley Forge General Hospital

Dear Not Responsive Due to Revised Scope,

Enclosed is a copy of the laboratory report prepared for the Phoenixville Area School District by Lancaster Laboratories. Also enclosed are copies of press accounts of the situation that might be of some help to you.

I will be glad to cooperate with you in any way as you proceed with the task as defined by the EPA. My principal concern is that the residents of the area are kept up-to-date on any and all developments as they occur. At the appropriate time I will appreciate any input you will be able to provide.

I may be reached at the Schuylkill Township Municipal Building at 933-8543 or 8544. My home telephone is (b) (6)

Theodore J. Ryan

Enclosures:

Theodore J. Ryan
Supervisor
Schuylkill Township

Volume 102 ● Number 157 ● Final Edition Thursday, April 5, 1990 ● Phoenixville, Pa.

Residents link cancer to army hospital grounds

By KONRAD SUROWIEC
Evening Phoenix Staff

SCHUYLKILL — Five area residents who have Hodgkin's disease have more than cancer in common — they are all neighbors of the former Valley Forge Army Hospital.

And that's no coincidence, they say.

Their stories about battling with the cancer convinced at least one member of the Schuylkill Township Board of Supervisors last night to agree to contact the federal Center for Disease Control in Atlanta, Ga., about testing soil at the former hospital site for toxins.

Hodgkin's disease is marked by inflammatory enlargement of the lymph nodes, spleen, liver and kidneys, which mainly strikes males between the ages of 18 to 40.

Four of the local residents who either have the disease or are in remission are current or former residents of South Evergreen Drive, which borders the former hospital.

Michael K. Fulmer Jr., 21, of Galicia Drive in Bevans Orchard, a development that borders the Valley Forge Christian College, was first diagnosed with the disease three years ago. He underwent chemotherapy and radiation treatments to remove the cancer, but it was discovered a second time.

Michael K. Fulmer Sr. said his son first underwent treatment at Lankenau Hospital, but he's now being treated at the Fox Chase Cancer Center in northeast Philadelphia.

"My son has lung damage from radiation," Fulmer said. "It (the cancer) normally relapses once."

"I found out I had the disease three months ago," said Jeff Kurtz, 20. "I want to know what's going on here."

Kurtz, an Auburn University student whose home is on North Forge Mountain Drive, lived on South Evergreen Drive from 1973 to 1981.

Frank Robinson, 44, of South Evergreen Drive, is undergoing radiation treatment for the disease. Two other former South Evergreen Drive residents who previously underwent treatments for the disease are Bob Dyer, 35, and Dennis Andrews, 27.

A high concentration of toxic chemicals has already been discovered on a nearby portion of the land owned by the Phoenixville Area School District, which was once the site of the hospital.

The army hospital operated there for over 30 years, treating serviceman wounded in World War II and the Korean and Vietnam wars. It closed in 1974. Most of the site, located in Charlestown and Schuylkill townships, is occupied by the Valley Forge Christian College, but a portion of the property was sold by the federal government to the school district.

District Superintendent Carolyn Trohoski reported in January that the land owned by the district was contaminated with heavy metals.

Lancaster Labs, a consultant hired by the district,

(Continued on Page 2)

(Continued from Page 1)

reported levels of hazardous metals, including lead and zinc, were abnormally high in a depressed 120 square-foot area of a 35-acre tract bounded by Township Line and East Seven Stars roads.

The toxins came from X-ray remains burned in the hospital's incinerator. The ashes in the samples collected by Lancaster Labs contained the chemicals.

"We have a deep concern about the toxic waste found in the hospital," said James Kurtz, Jeff's father. "Four people came down with it in six families (in adjacent homes on South Evergreen Drive.) What else did they bury down there?

"The school board must have some idea something is wrong there," said Frank Robinson. "My daughter plays lacrosse out there and I don't feel real confident with that."

Supervisor G. Edward Heit told the residents to bring any other pertinent information to the board at next Wednesday's 7:30 p.m. meeting because the board lacked a quorum to conduct business last night.

"As far as I'm concerned, one of us will contact the Disease Control Center," Heit said.

3 ill residents blame toxins at old hospital

Schuylkill officials to discuss claims

4-6-90

By VERONICA PRATT
(Local News Correspondent)

SCHUYLKILL — Supervisors plan to discuss the possibility that hazardous toxins discovered at the Valley Forge Hospital might have caused residents to suffer from Hodgkins disease.

Jeff Lutz, Frank Robinson and Mike Fulmer asked the supervisors Wednesday what the township was doing about the health problem.

All three suffer from Hodgkins disease. Lutz was diagnosed in December, Robinson was just diagnosed and Fulmer, who has it for a second time, was diagnosed last summer.

Kurtz had a list of five persons who have contracted the disease and all of them lived within a mile of each other near the hospital.

Supervisor G. Edward Heit said he had talked with an area doctor who said all of the cases couldn't have happened without something in common.

Since not enough supervisors were present for a formal meeting, Heit asked everyone to return on April 11.

The three suffering from the disease said they asked supervisors to investigate the situation in January when reports of high toxic levels in that area were made public.

The reports said high levels of lead, zinc and silver had been found in the soil of the 35-acre tract which was formerly the Valley Forge Hospital.

Lutz, 20, said although his family moved from the area, he remembers playing on the hospital grounds as a youngster, crawling under the fence to get in.

Fulmer's father said they just want answers. They'd like the supervisors to contact the Center for Disease Control to try to get someone to do tests on the land, he said.

Fulmer, 22, is going to Fox Chase Cancer Center for treatment. He has suffered heart and lung damage as a result of the heavy doses of radiation and chemotherapy treatments he has received.

Schuylkill

Disease afflicts residents

By Daniel Kaufman
Special to The Inquirer

Five men who lived near contaminated land on the old Valley Forge Army Hospital property off Charlestown Road have developed Hodgkin's disease within the last 15 years, the Schuylkill Township Board of Supervisors was told last week.

Three of the men, accompanied by family members, asked the supervisors Wednesday night to prod federal, state and/or county authorities to investigate a possible connection between their lymphatic cancer and toxic metals found on the land.

The Phoenixville Area School District, which leases a 35-acre piece of the property on Township Line Road near Coldstream Road from the federal government, announced it had discovered abnormally high levels of lead, zinc and silver on a depressed 6-by-20-foot section in January.

At that time, school Superintendent Carolyn Trohoski said burnt X-ray remains buried by the hospital before it closed in 1974 had caused the contamination.

Frank Robinson, 44, said, "I live there, I'm sick now and four of my neighbors are sick. Did they just bury it in one spot or did they spread it around?"

Hodgkin's disease, a rare but "very curable" form of lymph cancer, often strikes men between their late teens and early 40s, said Chris Holroyde, an oncologist at Phoenixville Hospital who is treating several of the men.

From 1971 until 1984, Robinson lived on South Evergreen Drive, which lies northeast of the contaminated area. Jeff Kurtz, 20, who also was diagnosed with cancer this year, lived there from 1973 until 1981. Michael Fulmer, 21, was diagnosed three years ago and still lives on Galicia Drive, located on the other side of the Army hospital.

Two other residents of South Evergreen Drive who once had the disease were not present at the meeting.

Holroyde said the cluster of cases next to the hospital was "very unusual." Because the cause of the disease is not known, however, "it is a statistical aberration which is interesting, but we can't prove anything."

The victims and their families asked the board, which had only two of its five members present, why it had never investigated whether the land was hazardous.

"Someone's dragging their feet," Kurtz said.

Supervisor Edward Heit said the board had notified the county Board of Health in West Chester a few days earlier after a friend of the residents told him about the five men last month.

"It sounds as though this situation had existed for some time," Heit said Thursday.

Heit said the board would postpone the meeting until 7:30 p.m. Wednesday when there should be a quorum.

ORIGINAL (Red)

Chemical find forces athletes off area field

Schuylkill officials alert DER

4-10-90

By CHARLENE KERWIN
Evening Phoenix Staff

SCHUYLKILL — Chemicals found Friday on the grounds of the Valley Forge Christian College have forced the Phoenixville Area High School girls' lacrosse team to find a new playing field, according Phoenixville Area School District officials.

Meanwhile, the Schuylkill Township Board of Supervisors sent a letter yesterday to the state Department of Environmental Resources in Norristown informing officials of the recent discovery of hazardous materials on the college grounds.

Supervisor G. Edward Heit, who thinks the recent discovery may be linked to several cancer cases in the area, said this morning that the township sent a letter to Joseph Feola, manager of the DER's Bureau of Waste Management.

The high school lacrosse team was forced to find a new playing field this week when containers with some kind of chemical were found on the second floor of the old psychiatric ward buildings of the former Valley Forge Army Hospital, according to Superintendent Carolyn Trohoski, who refused to identify the substance.

The school district was notified by VFCC officials of the situation on Friday, she said.

Neither VFCC President Wesley Smith, state Department of Environmental Resources officials, nor Chester County Department of Health officials could be reached this morning for comment.

Since the empty buildings are located next to the field where the high school's lacrosse team practices and holds games, the team has been temporarily moved up the street to the Center for Arts and Technology Pickering Campus, Trohoski said.

"We have suspended all play and practice" on the college grounds, she said.

The high school girls' hockey team also practices and plays games during the fall on the same field.

State Rep. Peter R. Vroon, R-157th, said yesterday he is looking into the connection of the cancer cases to the site of the former hospital.

Trohoski reported in January

(Continued on Page 9)

Chemical find forces athletes off area field

(Continued from Page 1)

that about 120 square feet of a 35-acre tract owned by the district was contaminated with heavy metals, including lead and zinc that came from X-ray remains burned in the hospital's incinerator.

The army hospital operated for more than 30 years, treating servicemen wounded in World War II and the Korean and Vietnam wars. It closed in 1974.

Schuylkill residents concerned about soil

4-12-90

By VERONICA PRATT
(Local News Correspondent)

SCHUYLKILL — More than 150 residents turned out Wednesday to question the board about the discovery of contaminated soil on the grounds of the former Valley Forge Military Hospital.

Besides the board, state Rep. Peter Vroon, R-Valley Forge, Dr. John Maher, director of Chester County's Health Department and township solicitor Robert Sugarman took part in the meeting.

Supervisor Theodore Ryan gave a summary of the case. He said on March 29 the board had been contacted by a property owner, Dr. Joseph Weinstock, who inquired about a possible connection between Hodgkin's Disease and contaminated soil at the hospital.

On April 2, Ryan contacted Maher and asked for his assistance. Seven days later, he telephoned Joseph Seola, manager of bureau of waste management at the state Department of Environmental Resources, reported the situation and asked for intervention.

Ryan said the state agency is scheduled to perform tests on the hospital grounds today.

Residents, however, wanted some answers Wednesday night. Questions ranged from the safety of the well water to how soon results of the site testing will become available.

Sugarman said a connection has to be established and that the process might not be accomplished over night.

"That stuff has been there for years and nobody attached any significance to it," Sugarman said.

"Let's not blame ourselves or the board members ... What's happened over the last eight weeks isn't as important as what will happen over the next eight years," he said.

Maher said, "As far as I know there's been no exposure to this community. There's nothing in medical literature that links Hodgkin's Disease with chemical contamination.

He assured residents that a questionnaire [illegible] for the cluster of cases.

Meanwhile residents asked for information on the DER finding as soon as possible. They promised to return to the next meeting.

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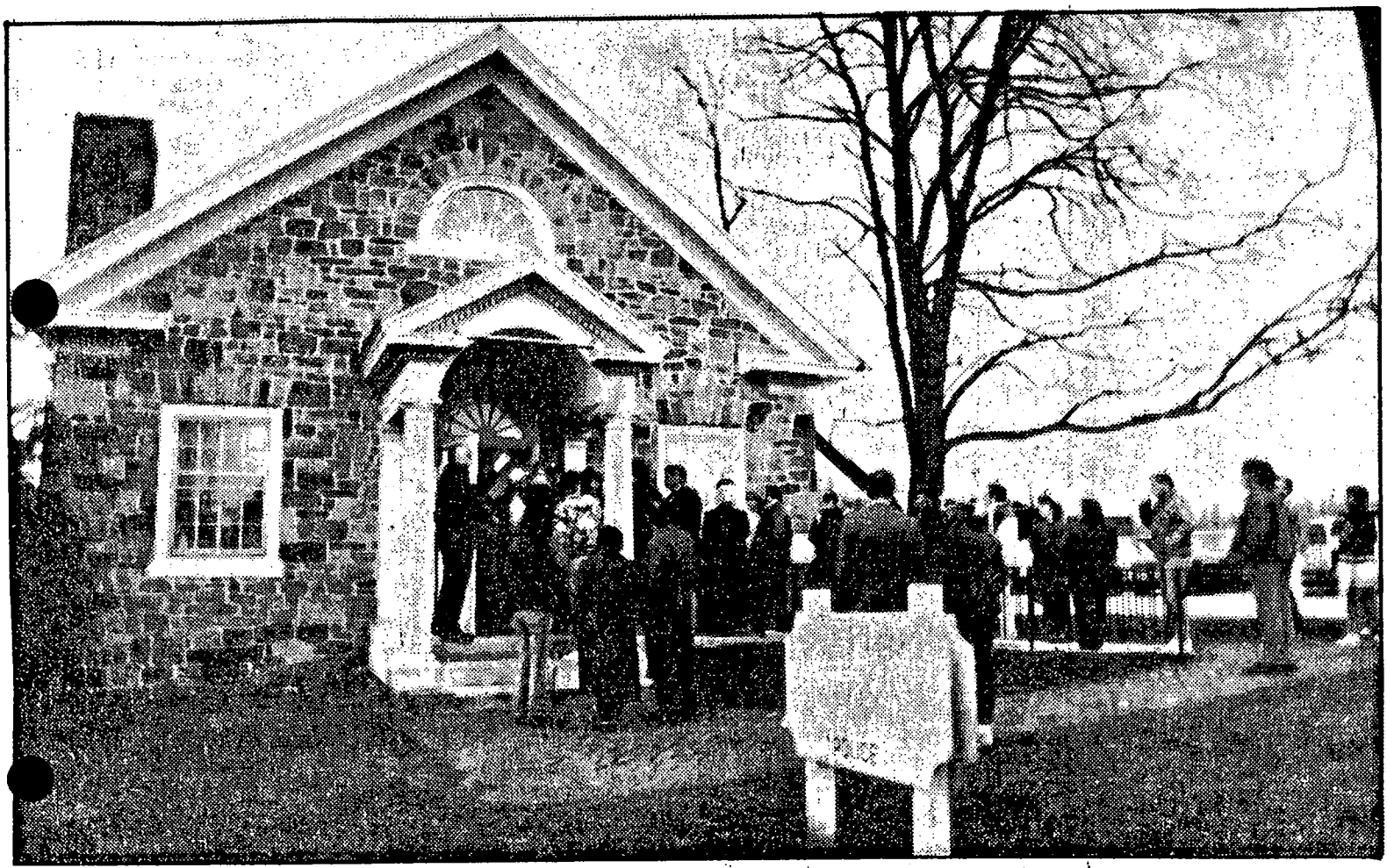
THURSDAY, APRIL 12, 1990

-Health concerns attract crowd-



POLLUTION FEARS — Residents line up outside the Schuylkill Township building Wednesday, waiting to get inside for the supervisors meeting (above). The size of the crowd — about 130 people — forced the relocation of the meeting to the Valley Forge Fire Hall. Residents were concerned about suspected toxic waste on the site of the former Valley Forge Military Hospital. Among them was Jeff Kurtz, who grew up near the site and now is suffering from Hodgkin's disease. (left).

Residents fear possible toxic waste site

By LINDA TRIEGEL
Special to The Mercury

SCHUYLKILL TWP. — Doctors, lawyers, township and county officials did their best Wednesday night to calm nearly 130 residents who jammed a supervisors meeting to express concern over a suspected toxic waste site.

The size of the crowd forced the supervisors to move the meeting from the tiny township building to the Valley Forge Fire Hall.

Five residents of the Evergreen Acres housing development, who were recently diagnosed as having Hodgkin's Disease, were in attendance.

Hodgkin's disease is cancer of the lymph nodes. All five residents live near the former Valley Forge Military Hospital site, where abnormally high levels of toxic materials were found in the soil in January.

Supervisor Ted Ryan said township officials first learned of the

(See SCHUYLKILL on 5)

Volume 102 • Number 163 • Final Edition Thursday, April 12, 1990 • Phoenixville, Pa.

Warning: Stay away from tox

Photo by Joe Wallace

Schuylkill resident Michael Fulmer Sr. addresses officials last night about his concerns.

Health offic site at ex-ar

By LISA SCHEID
Evening Phoenix Staff

SCHUYLKILL — County o ficials are warning parents t keep their children away from th grounds of the former Valle Forge General Hospital until the learn if the chemicals an minerals found there pose health threat.

Department of Environment Resources (DER) officials toure the site this morning. Bot Schuylkill Township Supervis Theodore Ryan and Wa Leuchak of the Chester Coun Health Department attended.

Health Department Direct John P. Maher said last night th contamination would only occ through "prolonged physical co tact" with the lead and zinc four in a 120-square-foot depressic on the site. The contaminatic came from x-ray remains burne

For affected neighbors, calm fields belie r

By LISA SCHEID
Evening Phoenix Staff

"I know it nds

SCHUYLKILL — An eerie silence now hangs over the athletic fields near Linda Nahrgang's home on Ellwan Drive

against hysteria, they are also warning parents to keep their children from the site until they know more about the chemicals there.

At a Schuylkill Township meeting last night, Nahrgang was among more than 100

But t ing ab surfaci from th

Cancer victims point to childhood play spot in Chesco

4-13-90

By Daniel Kaufman
Special to The Inquirer

Often during his childhood in Schuylkill Township, Jeff Kurtz crawled under the fence in his back yard onto the land where the Valley Forge Army Hospital once operated.

He loved to stroll through the abandoned red brick buildings, where veterans from World War II and Korea and Vietnam had been treated, or play softball outside with other kids from the neighborhood.

Michael Fulmer Jr. also spent hours roaming around the property. He and his brother would ride their bikes from their homes in Bevans Orchard a mile away and race them around an oval dirt-bike track.

Now Kurtz, 20, and Fulmer, 21, suffer from Hodgkin's disease, a form of lymphatic cancer. Three other current or former residents of South Evergreen Drive have also contracted the disease over the last 15 years.

Although Hodgkin's disease has never been linked to toxic substances, Fulmer and Kurtz think something on the old hospital grounds may have caused their illnesses.

"We thought it was weird that five guys living around the hospital got the disease," Kurtz said.

In January, the Phoenixville Area School District, which leased a 35-acre piece of the property from the federal government for a possible elementary school site, announced it had found highly toxic levels of lead, zinc and silver buried in a sunken 120-square-foot section of ground less than 100 feet from the fence behind Kurtz's former home.

That was about the time Kurtz and Fulmer found out about each other's conditions. Through a network of friends and relatives, they also learned of the other cases.

Then, last Friday, three small, decayed cans of cyanide powder were found at what once was one of the hospital's psychiatric wards. Wesley Smith, president of the 500-student Valley Forge Christian College, which occupies most of the property, told school officials of the discovery.

As a result, the school district moved its students away from softball and lacrosse fields to another section of the property, said Carolyn Trohoski. And today, the U.S. Army Chemical Command in Rockford, Ill., will come in to remove the cyanide, Smith said.

Accompanied by family members and Larry Robinson, 44, who was diagnosed with Hodgkin's this year, Fulmer and Kurtz asked the Schuylkill Township Board of Supervisors at meetings on April 4 and on Wednesday to find out why the site, which is about 80 acres, had never been examined more thoroughly and cleaned up. State Rep. Peter R. Vroon (R., Chester-Montgomery) said at Wednesday's meeting that the state Department of Environmental Resources had run tests on the property and found nothing.

The hospital closed in 1974, and the U.S. General Services Administration began leasing parts of the land to several entities, including Charlestown Township, which uses it as a recreation area.

Chester County Health Director John Maher told about 100 Phoenixville area residents at Wednesday's

(See CANCER on 5-B)

CANCER, from 1-B

meeting that lead was by far the most dangerous of the metals, but only through ingestion or prolonged contact with the skin.

"Unless you've got somebody literally rolling in it, it's not a carcinogen," he said.

Maher added that the presence of lead could be remains of lead protection vests incinerated and buried by the hospital, but could also have come from a lead and silver mine that was beneath the property or some other source.

The DER began a site inspection of the property yesterday to assess the level of danger and to look for other possible hazards.

Maher and several other medical experts said that no link between Hodgkin's and any chemical had ever been established.

"It isn't considered a chemical-induced disease — it's expected to be viral," said Howard Frumkin, an epidemiologist at the University of Pennsylvania.

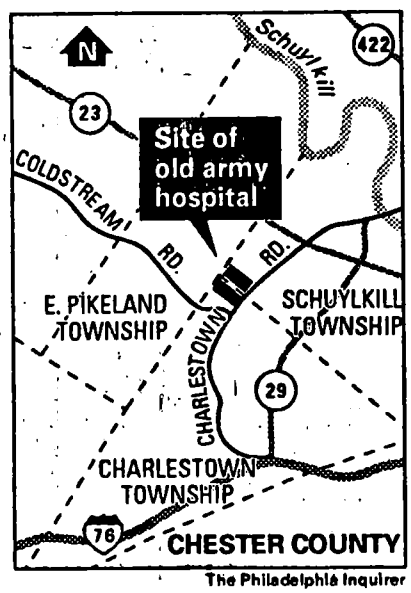
Nevertheless, said Chris Holroyde, an oncologist at Phoenixville Hospital who is treating several of the men, "this is a very unusual clustering of cases which is beyond anything one would normally expect."

Hodgkin's is a "very curable" form of cancer that often strikes men between their late teens and early 40s, Holroyde said.

After each discovered he had the enlarged lymph nodes that signify Hodgkin's disease — Fulmer in June 1987 and Kurtz in December 1989 — they had to drop everything for treatment. Fulmer gave up plans to enlist in the Navy; Kurtz dropped out of Auburn University.

Although they recognize that the cause of their illnesses may never be known, both men say they want to make sure people in the area are made aware of any dangers from the property.

"It's so other people don't get the same problems we do," Fulmer said. "It's been pretty hectic dealing with it."



The Philadelphia Inquirer

4-13-90

ORIGINAL (Red)

Stay away and give time to investigate

Residents who live near the former Valley Forge General Hospital have finally gotten the attention of county health and state environmental officials. Their concerns over toxic chemicals found there are being fully investigated.

Still, it took some brave souls who stood up at a recent meeting and said they have become victims of Hodgkins disease to draw all of this official attention. And it didn't hurt that more than 100 residents crowded into the Valley Forge Fire Co. garage this week to ask public officials what they are doing about it.

The first course of action, officials told parents, is to keep their children away from the grounds of the former hospital until they learn if the chemicals and minerals found there do, indeed, pose a health hazard.

The next day, Department of Environmental Resources (DER) officials toured the contaminated site along with Schuylkill Township Supervisor Theodore Ryan and Walt Leuchak.

The contamination apparently came from x-ray remains burned in the hospital's incinerator years ago. The materials were discovered about 18 months ago by Phoenixville Area School District.

The main thing to remember is not to panic. According to John P. Maher, director of the Chester County Health Department, "You literally have to be rolling in it" to be harmed.

Concerning another find, powdered cyanide discovered last week in a locked room of the former army hospital's psychiatric ward, officials promise to take action. The deteriorating container will be removed from the Valley Forge Christian College building.

The college occupies the buildings where the cyanide was found, and the school district owns the parcel where the contaminants were found.

Understandably, residents were upset when they gathered this week. Township supervisors were asked repeatedly why they did not look into reports of dumping and hazardous chemicals sooner.

"The very evidence of contaminated ground doesn't justify bringing out the Lithuanian Army," was the reply from Norman Vutz, chairman of the Schuylkill Township Board of Supervisors.

No, this is not a case for the Lithuanian Army. This is a case for health officials to investigate and recommend corrective measures. The school district found the contamination months ago, but the township didn't get involved until literally days ago.

Schuylkill residents voice fear about toxins

By Daniel Kaufman
Special to The Inquirer

Schuylkill Township residents want to call out the Army to Valley Forge.

But this time, they say, the Army's assignment is to clean up its own mess.

More than 100 people packed the Valley Forge Volunteer Fire Company firehouse Wednesday for a special meeting of the Schuylkill Township Board of Supervisors. The meeting was called to discuss what was being done about toxins found in and around the old Valley Forge Army Hospital.

The hospital treated veterans of World War II, the Korean War and the Vietnam War during 30 years in operation.

Residents also wanted to know whether the dangerous levels of lead and other metals found in the ground, or the cans of cyanide found in one of the hospital's psychiatric wards, could have caused the five cases of Hodgkin's disease diagnosed in the neighborhood around the hospital in the last 15 years.

In an interview, Wesley Smith, president of Valley Forge Christian College, said the Army Chemical Command in Rockford, Ill., planned to remove the cans of cyanide from the premises.

The hospital property is owned by the U.S. General Services Administration. Portions of it were leased to the Phoenixville Area School District, Valley Forge Christian College and Charlestown Township after the hospital's official closing in 1974. Area residents, however, said the hospital had been used for two more years. At the meeting, numerous residents criticized the Board of Supervisors for not contacting the appropriate federal, state or county regulatory agencies soon after the Phoenixville school district tested its land in January and found contaminants.

Board members countered that they had jumped on the problem as quickly as possible once they understood the threat.

"Every instance of contaminated ground does not justify bringing out the Lithuanian army," board President Norman Vutz said.

Board members said they had notified the state Department of Environmental Resources branch in Norristown, the Environmental Protection Agency, the Centers for Disease Control in Atlanta and the Army. The board also notified State Rep. Peter R. Vroon (R., Chester-Montgomery) and John Maher, Chester County's health director. Both attended the meeting Wednesday.

Vroon told the board that he had talked to officials from the DER, who

(See TOXINS on Page 9)

Residents voice fear over toxins

TOXINS, from Page 3

he said were "not downplaying this, but they've been testing for years and not finding anything."

DER officials joined Supervisor Ted Ryan and Chester County health officials at the site Thursday.

In an interview Thursday, Jason Gaertner, a DER spokesman, said the agency had not done any additional testing. The agency will examine soil samples already collected by the school district, Gaertner said.

Maher said he did not know whether the metals posed any danger to residents and said he knew of no evidence of a chemical link to Hodgkin's disease. Nevertheless, he said, "I would recommend keeping kids off the property."

Feds called in to probe toxins

4-16-90

By LISA SCHEID
Evening Phoenix Staff

SCHUYLKILL — State officials are asking the federal Environmental Protection Agency (EPA) to look into the contamination of land surrounding an abandoned incinerator at the site of the former Valley Forge General Hospital.

According to George Danyliw, manager of an eight-county state Superfund program, officials concluded after Thursday's site inspection that there may have been dumping in the area.

Danyliw said DER officials will fill out a discovery complaint by the end of this week. The complaint will be forwarded to EPA for its evaluation of potential health risk.

In the complaint, DER will outline what it knows about the site, including records of inspections and permits.

It is doubtful that DER granted permits for the incinerator, since the former Army hospital was built and maintained by the federal government, said Joseph Feola, director of the Bureau of Waste Management for the Norristown Region.

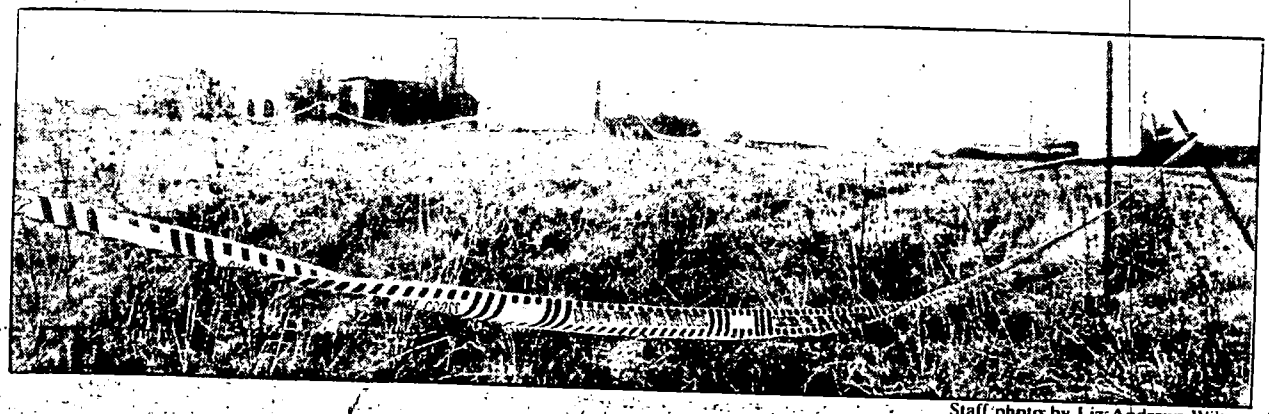
Also included in the DER complaint will be tests of soil samples taken last October for the Phoenixville Area School District. The results of the tests, announced in January, noted that abnormally high levels of lead and zinc were found in a depression near an abandoned incinerator where hospital waste was buried. No radiation or organic vapors were found in the holes tested by Lancaster Labs, a consultant for the Phoenixville Area School District.

By law, EPA must complete its assessment of the Township Line Road site within one year of the complaint. Danyliw said he did not know EPA system for handling complaint.

"It may be first come, first serve, or may not be," Danyliw said.

In addition to environmental sampling, EPA will review records of VFGH. After the assessment, EPA will reccommend either a "medium" or a "screaming" response, depending on the potential health risk. The EPA assessment will include an in-

(Continued on Page 3)



Staff photo by Liz Andrews Willow

The contaminated area is officially off-limits, and a gate nearby has been locked.

Feds called in to probe site

(Continued from Page 1)

vestigation of the size of the dump and may include sampling outside the 120-square-foot area identified by the school district.

After that DER will offers its comments on the report. Its comments will determine whether the incinerator dump should be listed among national priority sites. At present there are 708 priority sites in the eastern region of Pennsylvania, Danyliw said.

Feola said the incinerator waste suspected to be buried there is not necessarily hazardous.

"It depends on what it is and the temperatures it was burned at," Feola said.

Meanwhile, a private access road that runs past the site from Township Line Road has been locked. During Thursday's site inspection, the metal fence gate had been unlocked. Also, yellow plastic tape has been staked around the contaminated site.

The site, previously roped off by the school district with red fencing, had not been marked off for several weeks.

VOL. 13, NO. 34, APRIL 18, 1990

School teams barred from poisoned field

By LAURA CATALANO
Special to The Mercury

PHOENIXVILLE — Phoenixville Area School District Superintendent Caroline Trohoski has ordered school softball and lacrosse teams to stop using fields feared to be contaminated with toxic waste.

The lacrosse team had been using the field this spring near Evergreen Acres, where five residents have been diagnosed as having Hodgkin's Disease, a cancer of the lymph nodes.

The field is one of two locations where dangerously high levels of lead, zinc and other toxic substances were found by the school district in January. The other field is along Township Line Road near Coldstream Road.

The district acquired the land from the federal government when the Valley Forge Military Hospital closed at the site in 1978.

A softball field and other athletic fields are located at the site near Evergreen Acres.

Trohoski suspended teams from using the field after learning two weeks ago that several area residents who had once played on nearby fields had been diagnosed with Hodgkin's disease.

> The lacrosse team had been using the field, which is one of two locations where dangerously high levels of lead, zinc and other toxic substances were found by the school district in January.

The disease is being linked by the victims to contamination found on the site. However, township and county health officials have declined to make the link, pending further testing.

Trohoski said she suspended softball teams from using the field behind an abandoned building owned by Valley Forge Christian College after learning last Friday that three containers of cyanide had been found in the building.

The containers hold a total of 2 pounds of cyanide, she said. They

(See TEAMS on 6)

Teams off toxic field

(TEAMS from 1)

were left there for rodent control when the building was abandoned, Trohoski said.

The cyanide was found by a contractor hired by Valley Forge Christian College to demolish the buildings. Either the U.S. Environmental Protection Agency of the state Department of Environmental Resources will remove the cyanide, Trohoski said.

Trohoski said the federal government still owns the land near Evergreen Acres.

The federal government allowed the school district 30 years to either build a school on the property or give it back, Trohoski said.

The federal government is responsible for testing the soil and cleanup of the toxins, she said.

There is a chance the district will be reimbursed by the government for the $7,000 already spent in testing and research.

The district wants to give half the land back to the government and keep the other half for a bus garage and maintenance building. These buildings did not come in contact with contaminated soil, Trohoski said.

The softball team is now playing at the Phoenixville YMCA. The lacrosse games have been moved to a field at the Center for Arts and Technology, Pickering Campus.

Trohoski said all fields will have to be retested before activities can be resumed.

Army Corps joins probe of ash pit

4-21-90

By LISA SCHEID
Evening Phoenix Staff

SCHUYLKILL — The United States Army Corps of Engineers has joined county, state, and federal agencies probing the discovery of a hospital incinerator dump site on the grounds of the former Valley Forge General Hospital.

According to Bruce Heipke, director of FUDS clean up, the agency is trying to shuffle its priorities to fund testing at the VFGH site. FUDS are "formerly used defense sites" that have been transferred to another entity. VFGH is now technically owned by the Phoenixville Area School District and Valley Forge Christian College.

"We have to reprogram our funds to make funds available for the initial investigation," Heipke said.

Heipke plans to transfer $20,000 to a Missouri Bureau of The Corps that specializes in testing FUDS, he said. An investigation has to occur and be completed to determine if a cleanup needs to be done.

He said The Corps has about 7,000 FUDS slated for cleanup. He said it targets the "worst ones first."

Heipke said the Army Corps of

(Continued on Page 2)

(Continued from Page 1)

Engineers is concerned about the VFGH property because the incinerated hospital waste buried there is not contained.

According to the Environmental Research Foundation, modern standards for landfilling any type of waste material include a pipe and liner system to collect leachate, water that gets badly contaminated by contacting wastes. ERF, a Princeton-based organization that publishes a weekly hazardous waste newletter, and other environmental groups contend no landfill is leak proof.

There were no solid waste standards in 1943 when the hospital began burning its refuse. Waste thought to be harmless then has since been found to be hazardous.

ERF said that fractured bedrock beneath a landfill is "highly undesirable" because the wastes can't be located if they escape. In tests performed on a 120 square-foot portion of the dump for the Phoenixville Area School District, rock was found between 8 and 12 feet beneath the surface.

Hepke said he did know how dangerous the ash dump could be.

"At this point in time we don't know the hazard. What is loose in the environment is more of a concern," Heipke said.

He said The Corps has not rushed to Schuylkill to pick up the cans of cyanide found at VFGH two weeks ago because it is more concerned about investigating the ash dump.

"It has greater potential for hazards than the cyanide," Heipke said.

The Corps has joined the other agencies in the probe, Heipke said, because it may be ultimately be in charge of the clean-up if the contamination is found to be a health risk.

The Environmental Protection Agency is charged with finding the organiztions responsible for dumping in a site and deciding who and how to clean it up.

Since the Army was the obvious creator of the ash waste dump, it would be charged with the cleanup. The Corps of Engineers is the arm of the military that is responsible for cleaning up FUDS.

Residents testing well water near site of toxic ash dump

4-20-90

By LISA SCHEID
Evening Phoenix Staff

SCHUYLKILL — Fearing contamination from an incinerator dump on the grounds of the former Valley Forge General Hospital, residents along Township Line Road have begun testing their wells.

At least two residents who live nearby a plot of land found to have abnormally high levels of lead said they have made appointments to have their wells tested.

A narrow access road is all that divides Maryann Smith's well from the dump site. From the window of her trailer she can see the yellow tape blocking off the contaminated land and she wonders if that is enough to keep the lead away from her well.

Even though Smith drinks bottled water, she still worries.

"I have eight grandchildren. I have them here day and night," she says.

Smith says she can't follow them around to make sure they always drink bottled water. The kids are used to just reaching for a tap, she says.

Smith said she is not going to wait for the Chester County Health Department to recommend testing. She said the safety of her grandchildren is worth the $155.50 she will have to shell out to know if her water is contaminated.

Smith is testing her well for zinc, lead, sulfur, and silver.

Smith said she drinks bottled water because she has found her well water smells funny.

Smith's neighbor, Dixie Souder, said she is also checking her well water, but she is not panicking.

"There is no sense in panicking now. The damage has been done," Souder said. Souder said her husband, John, planned to get the water tested after tax season. John is an accountant and is very busy during that time of year she said.

John and Dixie began talking about well tests after a recent Schuylkill Township meeting where a number of Evergreen Acres residents called for a probe into a possible link between a cluster of Hodgkin's Disease cases and the lead contamination.

"I know some of the people who got cancer in Evergreen Acres. We've gone through hell with them," Souder said.

Although health officials say there is no link she still wonders.

"Is it the water or the grass... You begin to wonder," Souder said.

Evergreen Acres, a housing development northwest of the former Valley Forge General Hospital, and Valley Forge Christian College are served by the Phoenixville Water Department.

Residents along Township Line Road have private well water.

Staff photo by Brian M. Christopher

Scott and Dixie Souder at the side of their pool, which they fill with well water; VFCC is in background.

Investigators face prospect VFGH records gone forever

By LISA SCHEID
Evening Phoenix Staff

SCHUYLKILL — Records that could help investigators learn what is buried in a controversial incinerator dump may not even exist.

According to Roy Pirritano, Public Affairs Officer for the U.S Army Corps of Engineers in Philadelphia, records from the former Valley Forge General Hospital were probably destroyed. The Corps is the agency ultimately responsible for cleaning up the dump site.

Pirritano says "completion reports" requested by The Evening Phoenix were "not available." The standard forms were filed by a contractor with The Corps after the hospital was completed in 1943. The reports describe construction of buildings and probably give an indication of a waste disposal plan.

> "You don't know what you are asking for. There are boxes and boxes which were probably burned" ... about eight years after construction of the hospital.
>
> **— Roy Pirritano public affairs officer U.S. Army Corps of Engineers**

"You don't know what you are asking for. There are boxes and boxes which were probably burned," Pirritano said. He said Corps records were probably destroyed about eight years after construction.

Without records, it will be difficult for investigators to determine if a cluster of Hodgkin's disease cases in a development near the hospital is linked to what may be buried at the site.

Greg Schirm, director of the Delaware Valley Toxic Coalition, an environmental group concerned with toxic waste, says the key to finding out what was buried around the hospital and if anything could be connected to the Hodgkin's cases is not an epidiemological study or site testing, although those are important.

Testing soil, he says, is like finding a "needle in a haystack" when nothing is known about a site like VFGH.

(Continued on Page 12)

4-25-90

Investigators may be facing prospect records destroyed

(Continued from Page 1)

Schirm says records of activities at the VFGH would tell state and federal investigators what to look for in test samples. For instance, Schirm wonders, did doctors use a lot of disposable items made of plastic, as they do in modern hospitals? Plastics are known to produce dioxins but were not used as much then as they are today.

The hospital is known to have been a center for tuberculosis and hepatitus patients. The diseases are contagious, which may have given doctors cause to use diposables.

Purchase records might indicate the chemicals the doctors used. Other records may indicate how were they disposed. It's all speculation without them.

Alvin E. Cox, a former groundskeeper at the hospital, said last week he supervised the burning of "everything except radioactive material" in the 113 building complex. Cox could not be more specific about what kinds of material he burned over the thirty years he worked there. He said it included infectious waste.

Meanwhile, the Chester County Health Department has begun its preliminary investigation into the cluster of Hodgkin's disease.

Questionnaires about health-care history are being mailed this week to six residents and former residents in Evergreen Acres who have the lymphatic cancer. A consent form seeking permission to study the resident's health records is also being included.

ORIGINAL

Toxin report on way

4-30-90

Said to show storage tanks, drums buried

By LISA SCHEID
Evening Phoenix Staff

SCHUYLKILL — A site report of an Army Corps inspection of the former Valley Forge General Hospital grounds is expected to show storage tanks and 55 gallon chemical drums buried on the property.

The report, which languished in the U.S. Army Corps of Engineers bureaucracy for nearly two years, will be issued within the week, according to Army Corps officials.

"I understand its approval is imminent," said Bill Piccirilli, Army Corps project engineer for the hospital's cleanup. Piccirilli is based in the Baltimore District of the Army Corps.

A suspected ash dump was recently found by the Phoenixville Area School District near a 30-year-old incinerator on the property.

According to Lloyd Shell, director of environmental restoration of FUDS, the Army Corps made the inspection on June 29, 1988, at the request of the Phoenixville Area School District. District officials, who were looking at the land as a site for a new school, have since tested the site themselves. Based on the results of the test, the district decided to give the land back to the federal government.

FUDS are "formerly used defense sites." There about 7,000 FUDS slated for cleanup.

The report, called a "site inventory," lists objects and buildings located visually on the property by Army Corps inspectors. No soil or water testing was done.

Shell said the report took so long to be released because it had to pass through the Army Corps' legal and real estate departments for review. He said the Army Corps was in no rush because the site was not critical.

"As far as we know at the time we disposed of the property, it was not of a critical nature," Shell said.

The Army Corps gave portions of the property to the school district and Valley Forge Christian College in 1976. The district is in the process of returning the land.

The Army Corps does not have the authority to release the report, Shell said. That burden falls on the property owners.

District Superintendent Carolyn Trohoski said last week she would make the information available when she received it.

(Continued on Page 10)

(Continued from Page 1)

VFCC President Wesley Smith could not be reached for comment.

The site inventory is similar to a preliminary assessment performed on all suspected toxic sites by the Environmental Protection Agency. The EPA has yet to visit the former army hospital site.

Meanwhile, the quest for data on the army hospital continues.

Attempts by the school district to contact former hospital employees have prove fruitless, according to Trohoski.

Army Corps officials denied requests by The Evening Phoenix for hospital records saying that the records may have been destroyed.

The only other information available to describe what menace may be hidden beneath the soil of the former army hospital is a test of soil samples taken in October. A consultant for the school district tested the samples.

That report may not give a true picture of what is in the ground, according to one expert.

Steve Lester, toxicologist for the Citizen's Clearinghouse for Hazardous Waste, said the samples could have been diluted, making the site seem less dangerous.

Although the report did note abnormally high concentrations of lead and zinc levels of arsenic, cadmium and other contaminants usually found in incinerator ash did not exceed accepted levels.

According to the Lancaster Lab's report, results of analysis of samples taken at a variety of depths were reported together as a composite. Lester said composite sampling does not give an accurate picture of the danger. If a lot of lead was present in the top of the soil and a miniscule amount in the bottom, Lester said the two could average out to a level within standards. Lester said he would not be able to tell from a composite sample if there was more of a danger in surface contact with contaminated soil or possible leakage into groundwater.

HUTH
ASSOCIATES
ARCHITECTURAL SERVICES

1650 MANHEIM PIKE, P.O. BOX 3012, LANCASTER, PA 17604-3012
(717) 569-7021

December 20, 1989

Dr. Carol Trohoski,
Superintendent
Phoenixville Area School District
1120 South Gay Street
Phoenixville, PA 19460

Dear Dr. Trohoski:

Huth Architectural Services, Inc. (Huth) conducted a site assessment for the Phoenixville School District on October 23, 1989, at the Valley Forge Military Hospital (Figure 1). The site was the former location of the hospital incinerator. Recently, depressions have appeared on the property in areas in which hospital waste was buried. The Phoenixville School District was interested in determining whether trash was buried on the property of interest, and whether the presence of any buried trash was potentially harmful. They also wanted to know whether the presence of this material should prevent them from exercising their legal options on the property.

SAMPLING METHODOLOGY

As part of this assessment, Huth collected four composite soil samples from six test borings at the site. The soil samples were collected by advancing a hollow stem auger to a depth of five feet, then driving a split spool to refusal. The split spoon sampler was decontaminated prior to the start of sampling and between each test boring by washing in a mixture of de-ionized water and alconox, and rinsing in de-ionized water.

The area around the boring was monitored with an OVA (Organic Vapor Analyzer) for volatile organic vapors in the ambient air and with a radiation meter for gamma radiation detection. During the sampling, neither the OVA nor the radiation detector recorded ambient air readings above established background.

Six borings were installed in the test area; the locations of the borings are shown on Figure 2 and the boring logs are shown in Appendix A. All of the borings were taken to a depth in excess of 5.0 feet or to refusal. With the exception of Boring #3.0, all test borings encountered ash, broken glass and ceramic, and other garbage. Bedrock or competent rock is found at depths ranging from 6.5 feet to 12 feet across the site.

ANALYTICAL RESULTS

Samples were composited in the field and preserved in an appropriate decontaminated container. Grab sampling methodology was used to collect the sample. A chain of custody was prepared and the samples were shipped to Lancaster Laboratories for analysis.

The samples were analyzed for the following compounds:

- o Priority Pollutant Metals
- o Percent Oil
- o Total Cyanide
- o Phenols
- o Total Organic Halogens
- o Sulfide and Cyanide Reactivity
- o Corrosivity
- o pH
- o Total and Volatile Residue
- o BTU/Pound
- o Ignitability
- o Percent Moisture
- o ASTM Method 3987-85 Leachate Analysis

The analytical results are presented in Appendix B.

The analytical results received for oven dried samples (reported as Dry Weight Basis) can be evaluated in two ways. The concentrations of metals can be compared to typical concentrations of those metals in soils or shale, which is the rock type underlying the site (Table 1). As a generalization, concentrations of copper, lead, molybdenum, mercury, silver, and zinc exceeded typical concentrations of these metals in both soil and shale. Of these, only the concentrations of lead are anomalously high; these could be potentially dangerous.

A second method of evaluation of the analytical data involves a statistical approach which approximates the EP toxicity test, an analytical method used to determine the toxicity of leachate emanating from a test soil or solid. The EP toxicity test can be used to estimate what constituents are most prone to migrating into the groundwater by percolation. The dry weight average concentration reported in the chemical analysis is divided by 20 and compared to the established EP toxicity threshold values for these concentrations. Based on this approximation (Table 2), the only constituent of concern found in the composited samples is lead.

ORIGINAL (Red)

CONCLUSIONS

The concentration of lead found in these soils is anomalously high. Inorganic lead is of concern because it can become mobile under very weak acid solutions. The concentration of lead found in the soil could pose a problem to humans both by dermal contact and by ingestion. Because this property will be used for an elementary school, better quantification of the site soils should be done before this site is considered acceptable. Children are more susceptible to lead's toxic and chronic effects than are adults. Based on the limited data available to us, the anomalous concentrations of lead may exceed established health and safety criteria for exposure to lead. Huth Architectural Services would have serious trouble in recommending the site without further characterization and detailed chemical analysis.

Sincerely,

Not Responsive due to Revised Scope

Not Responsive due to Revised Scope

ORIGINAL
(Red)

APPENDIX A

BORING LOGS

PSC Engineers & Consultants, Inc.

BORING LOG

Page 1 of 1

ORIGINAL (Red)

PROJECT: Phoenixville School District

JOB NO: 1-89-04110

LOCATION:

DATE: 10/23/89

BORING NO.: # 1

RECORD BY: [redacted] Not Responsive due to Revised Scope

DRILL TYPE/CONTRACTOR: Hollowstem Auger/splitspoon

ELEVATION:

WATER TABLE: unknown

WEATHER: Sunny, mild

SAMPLE NO.	TYPE TEST	DEPTH (ft) From	DEPTH (ft) To	NO. OF BLOWS OR OVA (ppm)	DESCRIPTION	WELL CONSTRUCTION DETAILS
					Auger to 5'. Purplish brown clay with glass, burnt material	
		0	5	NO	No RADIATION	
		5	7	ND	Ash with large peices of glass, no radiation	
		7	10	ND	Ash, very wet, open void from 8 to 10'	
		10	12	ND	no radiation	
				100 blows	Clay, Ash, saprolitic red shale	
					Refusal at 12'.	
					Total depth 12'	

REMARKS:

PSC Engineers & Consultants, Inc.

BORING LOG

Page 1 of 1

ORIGINAL (Red)

PROJECT: Phoenixville School District

JOB NO: 1-89-04110

LOCATION:

DATE: 10/23/89

BORING NO.: #2

RECORD BY: [redacted]

DRILL TYPE/CONTRACTOR: Hollow stem auger

ELEVATION:

WATER TABLE: unknown

WEATHER: sunny/mild

Not Responsive due to Revised Scope

SAMPLE NO.	TYPE TEST	DEPTH (ft) From	DEPTH (ft) To	NO. OF BLOWS OR OVA (ppm)	DESCRIPTION	WELL CONSTRUCTION DETAILS
		0	5	0	silty sand and clay, glass, plastic no radiation. Auger/split spoon	
		5	6.5	0	sand and gravel	
		6.5	7.0	0	saprolitic shale and silt	
					Total depth 7.0'	

REMARKS:

Revised (11/89)

PSC Engineers & Consultants, Inc.

BORING LOG

ORIGINAL (Red)

PROJECT: Phoenixville School District

JOB NO: 1-89-04110

DATE: 10/23/89

BORING NO.: #3

RECORD BY: Not Responsive due to Revised Scope [redacted]

DRILL TYPE/CONTRACTOR: Hollow stem auger

LOCATION:

ELEVATION:

WATER TABLE: unknown

WEATHER: sunny/mild

SAMPLE NO.	TYPE TEST	DEPTH (ft) From	DEPTH (ft) To	NO. OF BLOWS OR OVA (ppm)	DESCRIPTION	WELL CONSTRUCTION DETAILS
		0	6.5	0	Auger/splitspoon. Red silty loam Hard greenish fill material and gray sandstone at 6.5' no RAdiation Total depth 6.5'	

(Depth scale: 5, 10)

REMARKS:

PSC015-1 (11/84)

PSC Engineers & Consultants, Inc.

BORING LOG

Page 1 ORIGINAL (Red)

PROJECT: Phoenixville School District
JOB NO: 1-89-04110

LOCATION:

DATE: 10/23/89
BORING NO.: #4
RECORD BY: [redacted]
DRILL TYPE/CONTRACTOR: Hollow stem auger

Not Responsive due to Revised Scope

ELEVATION:
WATER TABLE: unknown
WEATHER: sunny / mild

SAMPLE NO.	TYPE TEST	DEPTH (ft) From	DEPTH (ft) To	NO. OF BLOWS OR OVA (ppm)	DESCRIPTION	WELL CONSTRUCTION DETAILS
		0	5	0	Auger/split spoon, no radiation Red silty to clay rich loamy so small amount of ash and garbage	
		5	7	0	no radiation, Red silty soil with some garbage, Gray sandstone at 7.0'	
					Total depth 7.0'	

REMARKS:

PSC Engineers & Consultants, Inc.

BORING LOG

ORIGINAL (Red)

PROJECT: Phoenixville School District

JOB NO: 1-89-04110

LOCATION:

DATE: 10/23/89

BORING NO.: #5

RECORD BY: [redacted] Not Responsive due to Revised Scope

DRILL TYPE/CONTRACTOR: Hollow stem auger

ELEVATION:

WATER TABLE: unknown

WEATHER: sunny / mild

SAMPLE NO.	TYPE TEST	DEPTH (ft) From	DEPTH (ft) To	NO. OF BLOWS OR OVA (ppm)	DESCRIPTION	WELL CONSTRUCTION DETAILS
		0	5	0	Auger/splitspoon - No radiation Brown loamy soil, black ash and garbage fragments, porceline, metal scraps	
		5	8	0	Hit metal obstruction which twisted around auger bit, glass and ceramic fragments. No RADIATION	
		8	11	0	No RADIATION, void space water at 7-8! Total depth 11 feet	

REMARKS:

PSC Engineers & Consultants, Inc.

BORING LOG

ORIGINAL (Red)

PROJECT: Phoenixville School District

JOB NO: 1-89-04110

LOCATION:

DATE: 10/23/89

BORING NO.: #6

RECORD BY: [redacted] Not Responsive due to Revised Scope

DRILL TYPE/CONTRACTOR: Hollow stem auger

ELEVATION:

WATER TABLE: unknown

WEATHER: Sunny / mild

SAMPLE NO.	TYPE TEST	DEPTH (ft) From	DEPTH (ft) To	NO. OF BLOWS OR OVA (ppm)	DESCRIPTION	WELL CONSTRUCTION DETAILS
		0	5	0	auger and split spoon sampler No RADIATION. Red clay and silt, no fill material or garbage	
		5	8	0	Voids and fill material, granular sand. Trash, glass and other similar garbage No Radiation.	
					Total depth 8 ft.	

5

10

REMARKS:

ORIGINAL
(Red)

APPENDIX B

ANALYTICAL RESULTS

DATE: _____ COMPUTED BY: _____

JOB NO.: _____ CHECKED BY: _____

CLIENT/PROJECT: _____ SHT. _____ OF _____

HUTH
ASSOCIATES
ARCHITECTURAL SERVICES

ORIGINAL (Red)

Analyte concentrations in test soils above expected concentrations

Sample	Analyte	Dry Wgt Basis Concentration	Average Concentration of Analyte in Shale	Average Concentration of Analyte in Soil
#1+2 Composite	Lead	564 mg/kg	20 mg/kg	2-200 mg/kg
	Molybdenum	<10 mg/kg	3.0 mg/kg	2.0 mg/kg
	Silver	4.0 mg/kg	0.05 mg/kg	0.1 mg/kg
	Zinc	400 mg/kg	100 mg/kg	10-300 mg/kg
#3+4 Composite	Lead	426 mg/kg	20 mg/kg	2-200 mg/kg
	Silver	3.0 mg/kg	0.05 mg/kg	0.1 mg/kg
	Zinc	550 mg/kg	100 mg/kg	10-300 mg/kg
#4+5 Composite	Lead	288 mg/kg	20 mg/kg	2-200 mg/kg
	Mercury	1.2 mg/kg	0.5 mg/kg	0.03 mg/kg
	Molybdenum	<10 mg/kg	3.0 mg/kg	2.0 mg/kg
	Silver	2.0 mg/kg	0.05 mg/kg	0.1 mg/kg
	Zinc	352 mg/kg	100 mg/kg	10-300 mg/kg
#6 Composite	Copper	159 mg/kg	50 mg/kg	2 mg/kg
	Lead	370 mg/kg	20 mg/kg	2-200 mg/kg
	Mercury	2.0 mg/kg	0.5 mg/kg	0.03 mg/kg
	Molybdenum	<10.0 mg/kg	3.0 mg/kg	2.0 mg/kg
	Silver	23.0 mg/kg	0.05 mg/kg	0.1 mg/kg

PSC ENGINEERS & CONSULTANTS, INC.	PROJECT	SUBJECT	PAGE
	ORIGINATOR	PROJECT NO.	ORIGINAL (RED)
CALCULATION	CHECKED	DATE	

Divide Dry weight analyses by 20 gives quick and dirty feel for what EP Toxicity test would be

Analyte	Composite 1+2 Dry wgt / X/20	Composite 3+4 Dry wgt / X/20	Composite 4+5 Dry wgt / X/20	Composite 6 Dry wgt / X/20	EP Tox
Arsenic	4.0 / 0.2	2.0 / 0.1	4.0 / 0.2	7.0 / .35	5.0 mg/l
Barium	190. / 9.5	640 / 32	280. / 14.0	230 / 11.5	100 mg/l
Cadmium	0.8 / 0.04	<0.6 / 0.03	<0.6 / 0.03	<0.6 / 0.03	1.0 mg/l
Chromium	25 / 1.25	47 / 2.35	34 / 1.7	40 / 2.0	5.0 mg/l
Lead	564 / 28.2	175 / 8.75	288 / 14.4	370 / 18.5	5.0 mg/l
Mercury	0.4 / 0.02	0.3 / 0.02	1.2 / 0.06	2.0 / 0.1	0.2 mg/l
Selenium	<0.6 / 0.03	<0.6 / 0.03	<0.6 / 0.03	<0.6 / 0.03	1.0 mg/l
Silver	4.0 / 0.2	3.0 / 0.15	2.0 / 0.1	23 / 1.15	5.0 mg/l

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 M 2(Red) B/AL

LLI Sample No. SW 1451413

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

Phoenixville 1 + 2 Composite Soil Sample
Collected on 10/23/89 at 1400 by [redacted]
WO #1-89-04110

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Moisture	19.8	% by wt.	0.1	011101100
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	3.	mg/kg	1.	014503300
Barium	150.	mg/kg	20.	014601300
Cadmium	0.6	mg/kg	0.5	014901300
Chromium	20.	mg/kg	5.	015101300
Copper	161.	mg/kg	2.	015301300
Lead	452.	mg/kg	5.	015501300
Mercury	0.3	mg/kg	0.1	015903300
Molybdenum	< 10.	mg/kg	10.	016001300
Nickel	21.	mg/kg	4.	016101300
Selenium	< 0.5	mg/kg	0.5	016403300
Silver	3.	mg/kg	1.	016601300
Strontium	37.1	mg/kg	0.5	016801300
Zinc	320.	mg/kg	2.	017201300
Oil (Soxhlet Ext.)	0.02	% by wt.	0.01	023605000
Cyanide, Total	0.1	mg/kg	0.1	023705000
pH	7.42		0.01	039401000
Note: The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being stirred for 15 min.				
Phenols	< 0.3	mg/kg	0.3	043404000
Corrosivity		see below		049600000
Corrosivity: The pH of a 1:1 slurry (with deionized water) was 7.42 indicating that the waste is not corrosive. A waste is corrosive if it exhibits a pH equal to or less than 2 or equal to or greater than 12.5.				
BTU/lb	< 500.	BTU/lb	500.	051802500
Total Residue	80.2	% by wt.	0.1	052100000
The total residue is calculated by subtracting the moisture value from 100%.				
Volatile Residue	3.3	% by wt.	0.1	052200600
Ignitability		see below		054201500
The sample did not spontaneously ignite when exposed to air or water. The sample did not ignite when exposed to a Bunsen flame for ten seconds.				

The American Association for Laboratory Accreditation Chemical, Biological & Environmental fields of testing

Questions? Contact Environmental Technical Services at (717) 656-2301

See Reverse Side For Explanation Of Symbols And Abbreviations And Our Standard Terms And Conditions

Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

[redacted]
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 H 2 8

ORIGINAL (Rev)

LLI Sample No. SW 1451413

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 1 + 2 Composite Soil Sample
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Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT DRY WT. BASIS		LIMIT OF QUANTITATION	LAB CODE
Moisture *AS RECEIVED*	19.8	% by wt.	0.1	011104000
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	4.	mg/kg	1.	014504000
Barium	190.	mg/kg	20.	014604000
Cadmium	0.8	mg/kg	0.6	014904000
Chromium	25.	mg/kg	6.	015104000
Copper	200.	mg/kg	2.	015304000
Lead	564.	mg/kg	6.	015504000
Mercury	0.4	mg/kg	0.1	015904000
Molybdenum	< 10.	mg/kg	10.	016004000
Nickel	26.	mg/kg	5.	016104000
Selenium	< 0.6	mg/kg	0.6	016404000
Silver	4.	mg/kg	1.	016604000
Strontium	46.3	mg/kg	0.6	016804000
Zinc	400.	mg/kg	2.	017204000
Oil (Soxhlet Ext.)	0.02	% by wt.	0.01	023604000
Cyanide, Total	0.2	mg/kg	0.1	023704000
Phenols	< 0.4	mg/kg	0.4	043404000
BTU/lb	< 600.	BTU/lb	600.	051804000
Total Org. Halogen	< 100.	mg/kg	100.	057404000

2 COPIES TO PSC Engineers & Consultants ATTN: [redacted]

The American Association for Laboratory Accreditation
Chemical, Biological & Environmental Fields of Testing

Questions? Contact Environmental Technical Services at (717) 656-2301

See Reverse Side For Explanation Of Symbols And Abbreviations And Our Standard Terms And Conditions

Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

[redacted]
Group Leader, Inorganics

LLI Sample No. SW 1451413 ORIGINAL (Rev.)

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
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Phoenixville 1 + 2 Composite Soil Sample
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P.O. 1-89-04110
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Presently, no EPA approved method exists to determine if a solid is "ignitable". The EPA has approved methods to determine "ignitability" only on liquids. Therefore, this test alone does not indicate whether the material is ignitable as defined by RCRA in the Federal Register, May 19, 1980, Section 261.21. This test, which shows physical properties of the waste, along with other physical and chemical data available on the waste, can be used by responsible parties to judge if this sample is ignitable.				
Total Org. Halogen	< 100.	mg/kg	100.	057406500
Reactivity		see below		112105000
Reactivity: The sample was extracted by the interim method described in SW 846, Chapter 7.3. This solution was analyzed for cyanide and sulfide. This waste is not considered reactive and hazardous because it does not generate a quantity of cyanide exceeding 250 ppm or sulfide exceeding 500 ppm. These interim threshold limits were established by the Solid Waste Branch of EPA, July 12, 1985.				
Sulfide (Reactivity)	< 50.	mg/kg	50.	112201500
Cyanide (Reactivity)	< 100.	mg/kg	100.	112302500

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ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 H 2 8

LLI Sample No. SW 1451414 ORIGINAL (Red)

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 3 + 4 Composite Soil Sample
Collected on 10/23/89 at 1415 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Moisture	22.2	% by wt.	0.1	011101100
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	2.	mg/kg	1.	014503300
Barium	490.	mg/kg	20.	014601300
Cadmium	< 0.5	mg/kg	0.5	014901300
Chromium	36.	mg/kg	5.	015101300
Copper	332.	mg/kg	2.	015301300
Lead	136.	mg/kg	5.	015501300
Mercury	0.2	mg/kg	0.1	015903300
Molybdenum	< 10.	mg/kg	10.	016001300
Nickel	48.	mg/kg	4.	016101300
Selenium	< 0.5	mg/kg	0.5	016403300
Silver	2.	mg/kg	1.	016601300
Strontium	24.2	mg/kg	0.5	016801300
Zinc	428.	mg/kg	2.	017201300
Cyanide, Total	< 0.1	mg/kg	0.1	023705000
BTU/lb	< 500.	BTU/lb	500.	051802500
Total Residue	77.8	% by wt.	0.1	052100000
The total residue is calculated by subtracting the moisture value from 100%.				
Volatile Residue	6.0	% by wt.	0.1	052200600
Ignitability		see below		054201500

The sample did not spontaneously ignite when exposed to air or water.
The sample did not ignite when exposed to a Bunsen flame for ten seconds.

Presently, no EPA approved method exists to determine if a solid is "ignitable". The EPA has approved methods to determine "ignitability" only on liquids. Therefore, this test alone does not indicate whether the material is ignitable as defined by RCRA in the Federal Register, May 19, 1980, Section 261.21.
This test, which shows physical properties of the waste, along with other physical and chemical data available on the waste, can be used by responsible parties to judge if this sample is ignitable.

Reactivity — see below — 112105000

Reactivity:
The sample was extracted by the interim method described in SW 846,

Questions? Contact Environmental Technical Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:
[redacted]
Group Leader, Inorganics

The American Association for Laboratory Accreditation
Chemical, Biological & Environmental Fields of Testing

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ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 M 2 8

LLI Sample No. SW 1451412 ORIGINAL (Red)

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 3 + 4 Composite Soil Sample
Collected on 10/23/89 at 1415 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT DRY WT. BASIS		LIMIT OF QUANTITATION	LAB CODE
Moisture *AS RECEIVED*	22.2	% by wt.	0.1	011104000
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	2.	mg/kg	1.	014504000
Barium	640.	mg/kg	30.	014604000
Cadmium	< 0.6	mg/kg	0.6	014904000
Chromium	47.	mg/kg	6.	015104000
Copper	426.	mg/kg	3.	015304000
Lead	175.	mg/kg	6.	015504000
Mercury	0.3	mg/kg	0.1	015904000
Molybdenum	< 10.	mg/kg	10.	016004000
Nickel	62.	mg/kg	5.	016104000
Selenium	< 0.6	mg/kg	0.6	016404000
Silver	3.	mg/kg	1.	016604000
Strontium	31.1	mg/kg	0.6	016804000
Zinc	550.	mg/kg	3.	017204000
Cyanide, Total	< 0.1	mg/kg	0.1	023704000
BTU/lb	< 600.	BTU/lb	600.	051801000

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The American Association for Laboratory Accreditation
Chemical, Biological & Environmental Testing

Questions? Contact Environmental Technical Services at (717) 656-2301

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

[redacted]
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

VK2491 M 2 8

LLI Sample No. SW 1451414 ORIGINAL (Red)

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 3 + 4 Composite Soil Sample
Collected on 10/23/89 at 1415 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chapter 7.3. This solution was analyzed for cyanide and sulfide. This waste is not considered reactive and hazardous because it does not generate a quantity of cyanide exceeding 250 ppm or sulfide exceeding 500 ppm. These interim threshold limits were established by the Solid Waste Branch of EPA, July 12, 1985.				
Sulfide (Reactivity)	50.	mg/kg	50.	112201500
Cyanide (Reactivity)	< 100.	mg/kg	100.	112302500

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The American Association for Laboratory Accreditation Chemical, Biological & Environmental fields of testing

Questions? Contact Environmental Technical Services at (717) 656-2301
026 00543 35.00 050100

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Lancaster Laboratories, Inc.
Reviewed and Approved by:
[redacted]
Group Leader, Inorganics

Lancaster Laboratories INCORPORATED

ANALYSIS REPORT

WK2491 H 2 8

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 4 + 5 Composite Soil Sample
Collected on 10/23/89 at 1550 by [redacted]
WO #1-89-04110

LLI Sample No. SW 145415 ORIGINAL (Red)

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Moisture	15.1	% by wt.	0.1	011101100
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	4.	mg/kg	1.	014503300
Barium	230.	mg/kg	20.	014601300
Cadmium	< 0.5	mg/kg	0.5	014901300
Chromium	29.	mg/kg	5.	015101300
Copper	65.	mg/kg	2.	015301300
Lead	245.	mg/kg	5.	015501300
Mercury	1.0	mg/kg	0.1	015903300
Molybdenum	< 10.	mg/kg	10.	016001300
Nickel	24.	mg/kg	4.	016101300
Selenium	< 0.5	mg/kg	0.5	016403300
Silver	2.	mg/kg	1.	016601300
Strontium	29.3	mg/kg	0.5	016801300
Zinc	298.	mg/kg	2.	017201300
Cyanide, Total	< 0.1	mg/kg	0.1	023705000
BTU/lb	< 500.	BTU/lb	500.	051802500
Total Residue	84.9	% by wt.	0.1	052100000
The total residue is calculated by subtracting the moisture value from 100%.				
Volatile Residue	4.1	% by wt.	0.1	052200600
Ignitability		see below		054201500

The sample did not spontaneously ignite when exposed to air or water.
The sample did not ignite when exposed to a Bunsen flame for ten seconds.

Presently, no EPA approved method exists to determine if a solid is "ignitable". The EPA has approved methods to determine "ignitability" only on liquids. Therefore, this test alone does not indicate whether the material is ignitable as defined by RCRA in the Federal Register, May 19, 1980, Section 261.21.
This test, which shows physical properties of the waste, along with other physical and chemical data available on the waste, can be used by responsible parties to judge if this sample is ignitable.

Reactivity		see below	112105000

Reactivity:
The sample was extracted by the interim method described in SW 846,

Questions? Contact Environmental Technical Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:
[redacted]
Group Leader, Inorganics

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ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 H 2 8

LLI Sample No. SW 1451415 ORIGINAL (Red)

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012
Phoenixville 4 + 5 Composite Soil Sample
Collected on 10/23/89 at 1550 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chapter 7.3. This solution was analyzed for cyanide and sulfide. This waste is not considered reactive and hazardous because it does not generate a quantity of cyanide exceeding 250 ppm or sulfide exceeding 500 ppm. These interim threshold limits were established by the Solid Waste Branch of EPA, July 12, 1985.				
Sulfide (Reactivity)	< 50.	mg/kg	50.	112201500
Cyanide (Reactivity)	< 100.	mg/kg	100.	112302500

2 COPIES TO PSC Engineers & Consultants ATTN: [redacted]

The American Association for Laboratory Accreditation
Chemical, Biological & Environmental Fields of Testing

Questions? Contact Environmental Technical Services at (717) 656-2301
026 00543 35.00 050100

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Lancaster Laboratories, Inc.
Reviewed and Approved by:
[redacted]
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 H 2 8

ORIGINAL (85)

LLI Sample No. SW 1451485

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 4 + 5 Composite Soil Sample
Collected on 10/23/89 at 1550 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT DRY WT. BASIS		LIMIT OF QUANTITATION	LAB CODE
Moisture *AS RECEIVED*	15.1	% by wt.	0.1	011104000
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	4.	mg/kg	1.	014504000
Barium	280.	mg/kg	20.	014604000
Cadmium	< 0.6	mg/kg	0.6	014904000
Chromium	34.	mg/kg	6.	015104000
Copper	77.	mg/kg	2.	015304000
Lead	288.	mg/kg	6.	015504000
Mercury	1.2	mg/kg	0.1	015904000
Molybdenum	< 10.	mg/kg	10.	016004000
Nickel	28.	mg/kg	5.	016104000
Selenium	< 0.6	mg/kg	0.6	016404000
Silver	2.	mg/kg	1.	016604000
Strontium	34.6	mg/kg	0.6	016804000
Zinc	352.	mg/kg	2.	017204000
Cyanide, Total	< 0.1	mg/kg	0.1	023704000
BTU/lb	< 600.	BTU/lb	600.	051801000

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The American Association for Laboratory Accreditation Chemical, Biological & Environmental fields of testing

Questions? Contact Environmental Technical Services at (717) 656-2301

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Lancaster Laboratories, Inc.
Reviewed and Approved by:

[redacted]
Group Leader, Inorganics

Lancaster Laboratories INCORPORATED

WK2491 M 2 8

ORIGINAL (Red)

LLI Sample No. SW 1451416[illegible]

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 6 Composite Soil Sample
Collected on 10/23/89 at 1615 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Moisture	22.2	% by wt.	0.1	011101100
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	5.	mg/kg	1.	014503300
Barium	180.	mg/kg	20.	014601300
Cadmium	< 0.5	mg/kg	0.5	014901300
Chromium	32.	mg/kg	5.	015101300
Copper	123.	mg/kg	2.	015301300
Lead	288.	mg/kg	5.	015501300
Mercury	1.6	mg/kg	0.1	015903300
Molybdenum	< 10.	mg/kg	10.	016001300
Nickel	21.	mg/kg	4.	016101300
Selenium	< 0.5	mg/kg	0.5	016403300
Silver	18.	mg/kg	1.	016601300
Strontium	89.5	mg/kg	0.5	016801300
Zinc	228.	mg/kg	2.	017201300
Cyanide, Total	0.5	mg/kg	0.1	023705000
BTU/lb	< 500.	BTU/lb	500.	051802500
Total Residue	77.8	% by wt.	0.1	052100000
The total residue is calculated by subtracting the moisture value from 100%.				
Volatile Residue	3.4	% by wt.	0.1	052200600
Ignitability		see below		054201500

The sample did not spontaneously ignite when exposed to air or water.
The sample did not ignite when exposed to a Bunsen flame for ten seconds.

Presently, no EPA approved method exists to determine if a solid is "ignitable". The EPA has approved methods to determine "ignitability" only on liquids. Therefore, this test alone does not indicate whether the material is ignitable as defined by RCRA in the Federal Register, May 19, 1980, Section 261.21.
This test, which shows physical properties of the waste, along with other physical and chemical data available on the waste, can be used by responsible parties to judge if this sample is ignitable.

Reactivity		see below		112105000

Reactivity:
The sample was extracted by the interim method described in SW 846,

Questions? Contact Environmental Technical Services at (717) 656-2301

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

[redacted]
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 M 2 8

ORIGINAL (Red)

LLI Sample No. SW 1451416

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 6 Composite Soil Sample
Collected on 10/23/89 at 1615 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chapter 7.3. This solution was analyzed for cyanide and sulfide. This waste is not considered reactive and hazardous because it does not generate a quantity of cyanide exceeding 250 ppm or sulfide exceeding 500 ppm. These interim threshold limits were established by the Solid Waste Branch of EPA, July 12, 1985.				
Sulfide (Reactivity)	< 50.	mg/kg	50.	112201500
Cyanide (Reactivity)	< 100.	mg/kg	100.	112302500

2 COPIES TO PSC Engineers & Consultants ATTN: [redacted]

The American Association for Laboratory Accreditation Chemical, Biological & Environmental Fields of Testing

Questions? Contact Environmental Technical Services at (717) 656-2301
026 00543 35.00 050100

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Respectfully Submitted
Lancaster Laboratories, Inc.
Revieved and Approved by:
[redacted]
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 M 2 8

ORIGINAL (Red)

LLI Sample No. SW 1451416

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Phoenixville 6 Composite Soil Sample
Collected on 10/23/89 at 1615 by [redacted]
WO #1-89-04110

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ANALYSIS	RESULT DRY WT. BASIS		LIMIT OF QUANTITATION	LAB CODE
Moisture *AS RECEIVED*	22.2	% by wt.	0.1	011104000
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.				
Arsenic	7.	mg/kg	1.	014504000
Barium	230.	mg/kg	30.	014604000
Cadmium	< 0.6	mg/kg	0.6	014904000
Chromium	40.	mg/kg	6.	015104000
Copper	159.	mg/kg	3.	015304000
Lead	370.	mg/kg	6.	015504000
Mercury	2.0	mg/kg	0.1	015904000
Molybdenum	< 10.	mg/kg	10.	016004000
Nickel	27.	mg/kg	5.	016104000
Selenium	< 0.6	mg/kg	0.6	016404000
Silver	23.	mg/kg	1.	016604000
Strontium	115.	mg/kg	0.6	016804000
Zinc	293.	mg/kg	3.	017204000
Cyanide, Total	0.6	mg/kg	0.1	023704000
BTU/lb	< 600.	BTU/lb	600.	051801000

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The American Association for Laboratory Accreditation Chemical, Biological & Environmental Fields of Testing

Questions? Contact Environmental Technical Services at (717) 656-2301

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

Debora K. Gifford,
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 A 2 8

LLI Sample No. WW 1451417 FINAL (Red)

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ASTM Leachate of Phoenixville 1 + 2 Composite Soil
Collected on 10/23/89 at 1400 by [redacted]
WO #1-89-04110

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Solids	410.	mg/l	20.	020301100
Total Fixed Solids	340.	mg/l	20.	020400600
Total Volatile Solids	70.	mg/l	20.	020500000
Total Suspended Solids	4.	mg/l	4.	020601300
Fixed Suspended Solids	< 4.	mg/l	4.	020700600
Volatile Suspended Solids	< 4.	mg/l	4.	020800000
Chlorine Residual (DPD)	< 0.05	mg/l	0.05	024001800

The above analyses were performed on a leachate prepared from the submitted waste according to ASTM method 3987-85.

2 COPIES TO PSC Engineers & Consultants ATTN: [redacted]

The American Association for Laboratory Accreditation Chemical, Biological & Environmental fields of testing

Questions? Contact Environmental Technical Services at (717) 656-2301
026 00543 35.00 008900

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

[redacted]
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 H 2 8

LLI Sample No. WW 1451418

ORIGINAL
(Rev.)

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

ASTM Leachate of Phoenixville 3 + 4 Composite Soil
Collected on 10/23/89 at 1415 by [redacted]
WO #1-89-04110

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Solids	180.	mg/l	20.	020301100
Total Fixed Solids	100.	mg/l	20.	020400600
Total Volatile Solids	80.	mg/l	20.	020500000
Total Suspended Solids	< 4.	mg/l	4.	020601300
Fixed Suspended Solids	< 4.	mg/l	4.	020700600
Volatile Suspended Solids	< 4.	mg/l	4.	020800000
Chlorine Residual (DPD)	< 0.05	mg/l	0.05	024001800

The above analyses were performed on a leachate prepared from the submitted waste according to ASTM method 3987-85.

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The American Association for Laboratory Accreditation
Chemical, Biological & Environmental Testing

Questions? Contact Environmental Technical Services at (717) 656-2301
026 00543 35.00 008900

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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:
[redacted]
Group Leader, Inorganics

ANALYSIS REPORT

Lancaster Laboratories INCORPORATED

WK2491 M 2 8

LLI Sample No. WW 145141 9 ORIGINAL (Red)

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04[redacted]
Rel.

ASTM Leachate of Phoenixville 4 + 5 Composite Soil
Collected on 10/23/89 at 1550 by [redacted]
WO #1-89-04110

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Solids	160.	mg/l	20.	020301100
Total Fixed Solids	100.	mg/l	20.	020400600
Total Volatile Solids	60.	mg/l	20.	020500000
Total Suspended Solids	< 4.	mg/l	4.	020601300
Fixed Suspended Solids	< 4.	mg/l	4.	020700600
Volatile Suspended Solids	< 4.	mg/l	4.	020800000
Chlorine Residual (DPD)	< 0.05	mg/l	0.05	024001800

The above analyses were performed on a leachate prepared from the submitted waste according to ASTM method 3987-85.

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The American Association for Laboratory Accreditation Chemical, Biological & Environmental fields of testing.

Member American Council of Independent Laboratories, Inc.

Questions? Contact Environmental Technical Services at (717) 656-2301
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Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:

[redacted]
Group Leader, Inorganics

ORIGINAL (Red)

LLI Sample No. WW 1451420

PSC Engineers & Consultants
1650 Manheim Pike
P. O. Box 3012
Lancaster, PA 17604-3012

Date Reported 11/21/89
Date Submitted 10/24/89
Discard Date 12/22/89
Collected by [redacted]
P.O. 1-89-04110
Rel.

ASTM Leachate of Phoenixville 6 Composite Soil
Collected on 10/23/89 at 1615 by [redacted]
WO #1-89-04110

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Solids	370.	mg/l	20.	020301100
Total Fixed Solids	300.	mg/l	20.	020400600
Total Volatile Solids	70.	mg/l	20.	020500000
Total Suspended Solids	< 4.	mg/l	4.	020601300
Fixed Suspended Solids	< 4.	mg/l	4.	020700600
Volatile Suspended Solids	< 4.	mg/l	4.	020800000
Chlorine Residual (DPD)	< 0.05	mg/l	0.05	024001800

The above analyses were performed on a leachate prepared from the submitted waste according to ASTM method 3987-85.

2 COPIES TO PSC Engineers & Consultants ATTN: [redacted]

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Questions? Contact Environmental Technical Services at (717) 656-2301
026 00543 35.00 008900

See Reverse Side For Explanation Of Symbols And Abbreviations And Our Standard Terms And Conditions

Respectfully Submitted
Lancaster Laboratories, Inc.
Reviewed and Approved by:
[redacted]
Group Leader, Inorganics